

XLII. *Descriptions of Two new Australian Lucanidæ.*

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[Read 2nd March, 1863.]

ALTHOUGH I have so recently offered to the Entomological Society descriptions and figures of several species of *Lucanidæ* from the Antipodes, I am again able to add to my former papers two other interesting insects belonging to the same family from Australia, of one of which we are unfortunately only acquainted with a single female specimen in the Collection of the British Museum, whilst of the other our knowledge is confined to a most elaborate drawing of a male insect kindly forwarded to this country by Dr. Howitt, and as kindly placed in my hands by Major Parry, with a view to my drawing up a detailed description of it for our Society.

In consequence of our ignorance of the male of the former of these two insects, it is not easy to refer it with precision to the subgeneric group to which it belongs, especially as the female presents a combination of characters not met with in the females of any of those divisions hitherto proposed. I am therefore compelled to describe it as a species of the great group *Dorcus*, waiting until the arrival of its male shall clear up its true position.

*Dorcus Howittanus.* (Pl. XXI. fig. 1.)

Niger, subnitidus, tenuissimè punctatus; capite latissimo, versus angulos posticos fortius punctato, elytrorum latitudine, angulis posticis pone oculos rotundatis; mandibulis falcatis, edentatis, capitis longitudine; pronoto transverso, antice vix capite latiori, postice paullo angustiori; elytris ad basin parte postica pronoti vix latioribus; tibiis 2 anticis simplicibus; 4 posticis in medio spinâ armatis.

Long. corp. cum mand. lin. 16; mand. lin.  $2\frac{3}{4}$ ; cap. lin.  $2\frac{3}{4}$ ; pronot. lin. 3; elytrorum lin.  $7\frac{1}{3}$ .

Lat. capitis lin.  $6\frac{3}{4}$ ; parte postica pronoti lin. 6.

Habitat Gipps Land, ad partem austral.-orient. Novæ Hollandiæ.

In Mus. D. Howitt.

The remarkable width of the head of this insect renders it at once distinct from all the other species of the genus. It is black and slightly glossy, short and broad in its form, the prothorax and head being of nearly equal width, the hind part of the head being as wide as the front part of the prothorax. The general surface of the body is delicately punctured, but the hind part of the head, several spaces on the pronotum, and the slight sulcations of the elytra, are more strongly punctured. The head has the posterior angles behind the eyes prominent, but rounded off; in front of the eyes the sides of the head are gradually narrowed, the anterior angles being obliquely truncated; the disc of the head, near the fore margin, having two elevated tubercles near the base of the mandibles, which are porrected, as long as the head, sickle-shaped, and not furnished with any teeth on the inside; the front of the head is acutely angulated and deflexed. The prothorax is quite transverse and widest near the anterior margin, the fore angles being slightly rounded off, the hinder portion of the lateral margin being nearly straight, and the posterior angles acute and slightly narrower than the base of the elytra. The disc of the pronotum has several slight impressions. The elytra near the basal angles are acute, the base being scarcely narrower than the central part; they are margined at the sides, and each has the disc impressed with several slight sulci; they are very convex on the disc, and rounded behind. The anterior tibiæ have the apical external angle produced to a sharp slightly curved spine; they are destitute of teeth on the outer margin, (a very slight tooth appears to be indicated in the drawing on the left fore tibia, which is absent in the right one,) and the four posterior tibiæ have a small acute tooth near the middle of the outer margin.

This species might at first sight be (and indeed has been) considered as the male of the insect which I described in these Transactions (2nd Series, vol. iii. p. 220) from a single female specimen in the British Museum Collection, taken at Moreton Bay, under the name of *Dorcus Pelorides*; but on carefully comparing Dr. Howitt's drawing with the type of that species, I feel satisfied that the two insects are specifically distinct. I therefore take the opportunity of adding a figure and details of *Dorcus Pelorides* (Pl. XXI. fig. 2), in order that the differences between the two insects may be at once perceived. These differences appear to me to be such as would not be exhibited by the opposite sexes of one and the same species. This is especially the case with the shape of the head, the rather deep semicircular emargination of its front margin, the outline of the prothorax, rather broader at its posterior angles than

the base of the elytra, and the ovate form of the latter, which are considerably wider across the middle; the dilatation of the dentate fore tibiæ is of course a sexual character.

*Dorcus carbonarius*. (Pl. XXI. fig. 3.)

Latus, niger, nitidus; capitis parte antica rugose-punctata; pronoti lateribus punctatis, elytrisque minutissime punctatissimis; clypeo antice angusto, parum producto, truncato, angulis posticis capitis paullo obtuse productis; pronoti marginibus lateralibus rotundatis, angulis posticis vix emarginatis; elytris vix costatis, tibiis 2 anticis latis, 5-dentatis, 4 posticis in medio spinâ unâ spinulâque adjectâ armatis.

Long. corp. cum mandibulis lin. 17; lat. pronoti lin.  $6\frac{2}{3}$ ; lat. elytr. in medio lin.  $7\frac{1}{4}$ .

Habitat Nova Hollandia, ad litt. sept.-occid.

In the British Museum. Collected by — Burn, Esq., Surg., R. N. Presented by Haslar Hospital.

The broad glossy form of this species distinguishes it from all the other insects to which it is most allied, giving it a certain amount of resemblance to *Lucanus glabratus* of De Haan, but the general structure of the insect will not allow of its approximation to that insect in the arrangement of the family. The head is rather small, with the anterior angles entirely rounded off in an oblique direction; the hinder angles behind the eye are slightly angulated; the front margin of the head is emarginated, and in the middle is a small advanced clypeus, truncated in front; the mandibles (female) are small, strong, and with a large tooth in the middle of the inner margin; the mentum is semicircular; the maxillæ rather small, with the inner lobe acute at the tip; the palpi are small, the first and third joints being the shortest; the labium is bifid and setose, and the labial palpi have the three joints of nearly equal length, the last being rather curved. The eyes are partially divided by the lateral septum of the skull. The antennæ rather short, with the 6th and 7th joints small, each producing a seta; the three terminal joints small, the last rounded at the apex; the prothorax is large, much wider than the head; the lateral margins regularly rounded and marginated, smooth, with the sides punctured; the posterior angles slightly produced; the fore margin strongly sinuated. On each side, within the lateral margins, is an oval impression of considerable size. The elytra are large and broad, being wider in the middle than the prothorax; they are delicately and closely punctured,

with a short impressed line near the scutellum, two others on the disc parallel with the suture, the outer one not extending so far as the inner, and two other sulci on the disc beyond the middle. The legs are strong; the fore tibiæ broad and multidentate, the tooth preceding the apex being the strongest, the middle and hind tibiæ have a strong spine in the middle of the outer margin, preceded by a minute one.

The general structure of this female insect removes it generically from all the other groups with the females of which we are acquainted. The rounded prothorax and spinose tibiæ separate it from the true *Lucani*. In *Odontolabis* (*Alces*, &c.) the hind tibiæ are simple. In *L. Rafflesii*, *Nepalensis* and *Chevolatii*, the form of the prothorax and broad fore tibiæ of this new insect are not found. It is, however, much closer to some of the larger species of *Dorcus*, especially in the toothing of the legs and in the produced clypeus, but its broader form and rounded thorax removes it from all of these.

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#### DESCRIPTION OF PLATE XXI.

Fig. 1. *Dorcus Howittanus*, ♂.

Fig. 2. *Dorcus Pelorides*, ♀, magnified.—2*a*, the head from above; 2*b*, maxilla; 2*c*, terminal joints of antenna; 2*d*, fore tibia; 2*e*, middle tibia; 2*f*, hind tibia.

Fig. 3. *Dorcus carbonarius*, ♀, natural size.—3*a*, the head from above; 3*b*, maxilla; 3*c*, mentum; 3*d*, labium and palpi; 3*e*, antenna.

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